

**CENTRE OF STUDIES FOR BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA**

**GREEN TECHNOLOGY: ASSESSING THE POTENTIAL OF GREEN
WALL DEVELOPMENT IN MALAYSIA**

**FARAH NAJLAA BINTI ZULKIFFLI
(2012230692)**

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**“I hereby declare that this academic project is the result of my own research
except for the quotation and summary which have been acknowledged”**

Student's Name : Farah Najlaa Binti Zulkiffli

Signature

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UITM No. : 2012230692

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ABSTRACT

Green wall is one of the green technology that applied to the building to helps improve to better environment. Green wall consist of plants that grown in supported vertical systems that generally attached to an internal or external wall. Green wall become one of the key to improve urban environment in urban planning. In Malaysia, Construction Industry Development Board has initialized the green technology programmed since 1999 but, after 10 years, this technology is still in infancy. Malaysia rank in 26th position in the world's green leaders that indicate Malaysia is far behind in term of environment concern. The government of Malaysia had started to emphasize on sustainable development in the Ninth Malaysian Plan. In Malaysia, a few building have been applied the green wall system. This study aim to assess the potential of green wall application in Malaysia that will contribute to better environment. There are three objectives for this study. The first objective is to investigate the concept and function of green wall that applies to the building. The functions are scientifically proved such as their impact on environment, economic and social. The second objective is to identify building user perception towards green wall application and the last objective is to give recommendation to reduce the problems occur by using green wall in Malaysia. The data is gained through semi-structured interview, observation and questionnaires. Three case studies that implement green wall were selected to complement this research. The interview process was held with the expertise panel such as the project manager, property manager, landscape architect and the maintenance of the building. The overall finding indicates the potential of green wall in Malaysia is high as most respondents are positive with the application of green wall. The green wall gives many benefits to our environment, thus act as aesthetical benefit.

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

Construction industry is very important to the global urbanization. The construction industry itself has a significant impact on the environment, especially during operation and construction phase. Today green technologies play a very important role in the promotion of a social movement towards sustainability. The main goal of green technology is to achieve economic development (Osman, Udin & Salleh, 2012, Abu Bakar, Mohd Sam, Tahir, Rajiani & Muslan, 2011). Furthermore, according to Osman et al. (2012) green technology can achieve human satisfaction in harmony with the environment.

Construction industry has long been associated with the detrimental effects to our mother earth (Zainul Abidin, 2009). Zainul Abidin (2009) stated that, in Malaysia the government, professional organizations and private companies are starting to pay attention to the necessity of this environmental problem without having to constraining the need for development. Technology plays a very important role in sustainable development because it is one of the most significant ways in which we interact with our environment.

Green technology is needed in order to proceed toward sustainability (Osman, Udin & Salleh, 2012). Green technology is the application of the environmental science to conserve the natural resources, and environment. Furthermore, the negative impacts will reduce that cause by human intervention. Planting on roofs and facades are one of the most innovative fields of green technologies (Chong & Hoseini, 2012). According to Chong and Hoseini (2012) the same transition from the concept of green roof seems likes to happen with the new concept of green walls. This new technology will allow us to